

Measurements of the Parthenon

The Parthenon is 19.8 meters (65 feet) high with its superstructure resting on the base of the temple, consisting of three steps. The largest dimensions are furnished by the lowest of these steps, the *stereobate*, which is 72.5 meters (238 feet) long by 33.8 meters (111 feet) wide. The top step, the *stylobate*, on which the *peristyle* (colonnade) rests, is 68.5 meters (228 feet) long by 30.8 meters (101 feet) wide. One of the subtleties employed by the Greeks in building the Parthenon is that no two major lines are exactly parallel nor exactly equal in length.

A striking feature of the Parthenon when viewed from the exterior is the encircling row of great Doric columns forming the *peristyle*. There are 46 of these columns, 17 on each side, 6 on each end (not counting the corner columns twice), and 6 each on the east and west porticos. The columns of the *peristyle* are 10.4 meters (34 feet) high with an approximate diameter at the base of 1.8 meters (6 feet). They have an average spacing from face to face of 2.4 meters (8 feet). The columns of the *porticos* are somewhat smaller, having a base diameter of columns of 1.7 meters (5 1/2 feet). The use of the word "approximate" in the above description is necessitated by the fact that all columns in the building are actually different in diameter from those beside them and are all spaced differently. This and another refinement technically known as *entasis*, were used to offset optical illusions and give the columns their beautiful symmetry. *Entasis* refers to the fact that, although the columns appear to diminish in size as they rise from the base, they are actually slightly bulging at the center. Had this not been done by the Greeks, the columns would have appeared to be concave just below the center.

The only openings to the Parthenon are the two pairs of great bronze doors leading off the east and west *porticos*. These doors are the largest in America and probably the largest bronze doors in the world. These doors are 7.3 meters (24 feet) high, 2.1 meters (7 feet) wide, 31 centimeters (1 foot) thick and weigh 6,804 kilograms (7.5 tons) each.

On the interior, the *cella* (main body) of the building is divided into two rooms: to the east the treasury and to the west the *naos* (temple). The *naos* is 29.9 meters (98 feet) long, 13.1 meters (43 feet) high with a double row of Doric columns, 23 below and 23 above, separated by an *architrave*. These columns are 1.14 meters (3.75 feet) in diameter and 6.4 meters (21 feet) high and the upper ones are 68 centimeters (2.25 feet) in diameter and 4.9 meters (16 feet) high. The floor of the colonnade and corridor is raised 4 centimeters (an inch and a half) above the main floor. It is in this room that the 12.8-meter (42 foot) high statue of Athena stands facing the east doors, 6.1 meters (20 feet) from the end columns.

The treasury is 13.4 meters (44 feet) long and 19.2 (63 feet) wide having four columns arranged in a rectangle 4.9 by 7 meters (16 by 23 feet) in the center of the room. These columns are Ionic and 12.5 meters (41 feet high), 1.8 meters (6 feet) in diameter at the base and 1.1 meters (3 1/2 feet) in diameter at the top. Decorations of this room are Ionic. This was the room in which the priests deposited valuable gifts brought by worshipers.

